

Cardiovascular and diabetes risk in firefighters ...and hormone Q & A

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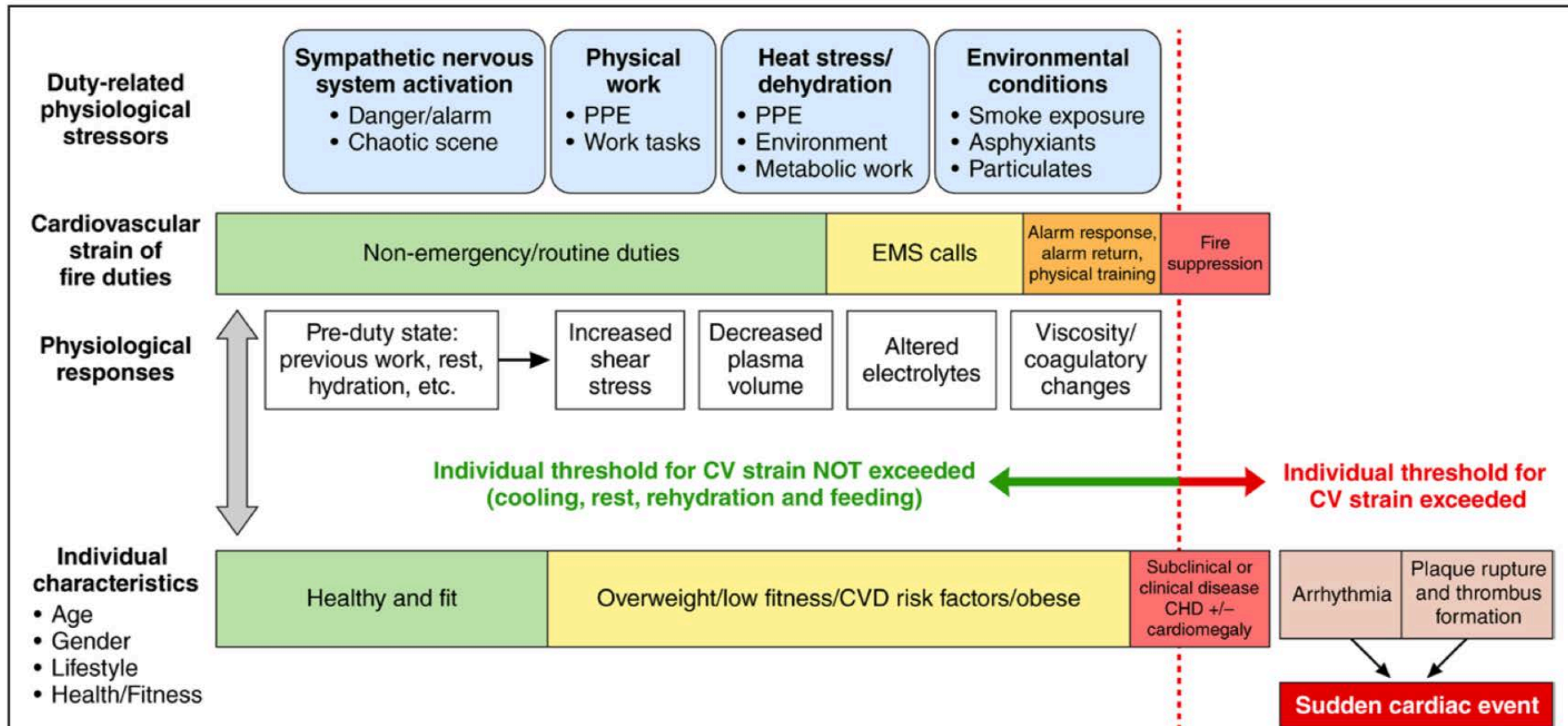
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Cardiovascular health and fitness of firefighters

- **Cardiovascular disease is leading cause of death in on-duty firefighters**
- **Cardiovascular risk factors are prevalent**
Study of 947 male and 76 female Colorado firefighters found:
 - **Obesity: 11% of women (23% of men)**
 - **Hypertension: 31% of women (51% of men)**
 - **49% did not meet minimum fitness level**
 - **Hyperglycemia <2%**



Increased risk of sudden cardiac death in firefighters related to work conditions



These stressors likely give rise to other health risks



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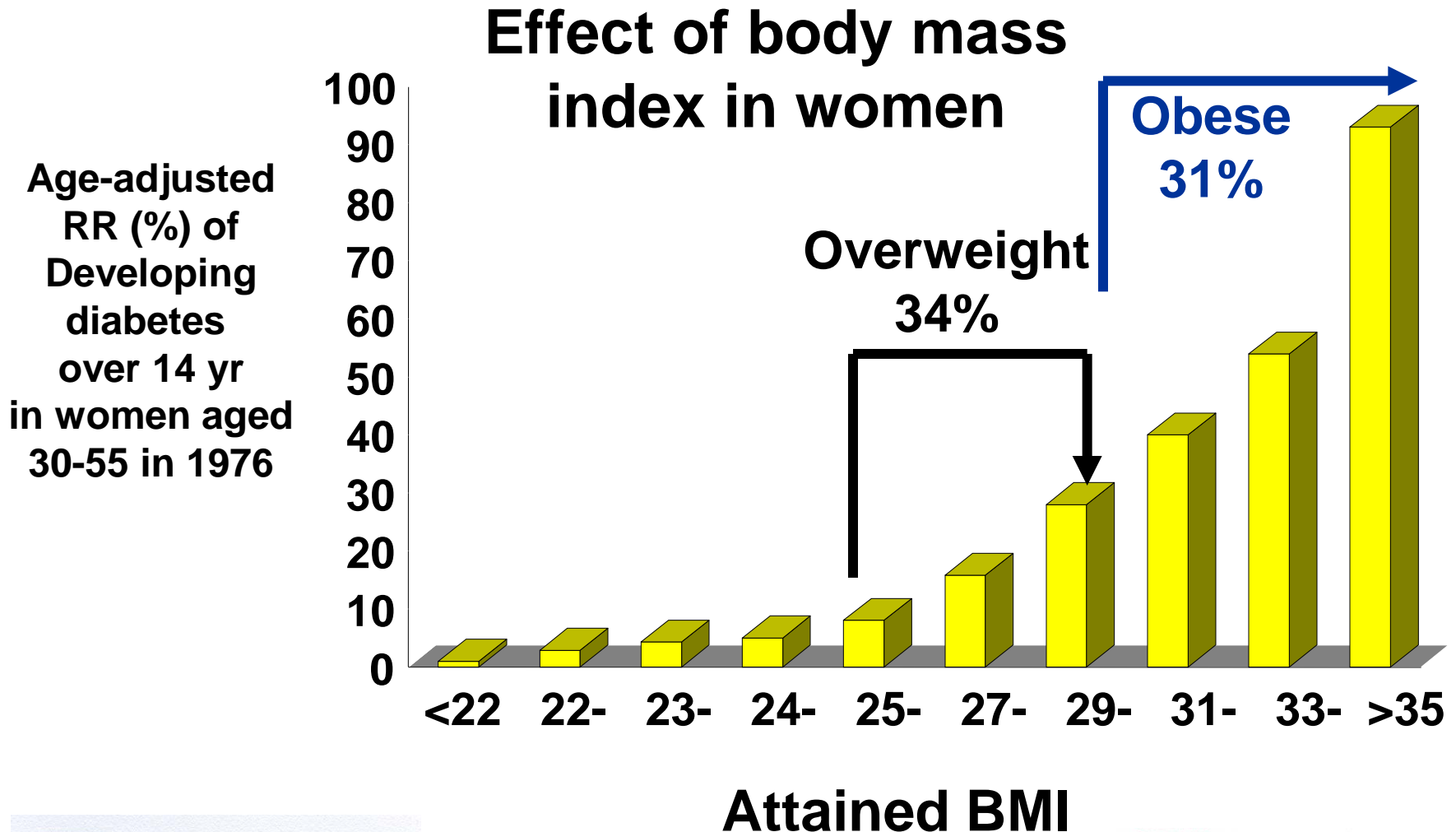
Kales, Circulation, 2017

Cardiometabolic risk

- **Low cardiorespiratory fitness → increased risk of cardiac events**
 - **Priority: maintain fitness**
- **Night shift work, stress, and sleep deprivation → increased intake of calorie-dense foods, obesity**
- **Obesity plus family history/genetic risk → increased diabetes risk**



Risk for type 2 diabetes increases with body weight



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NHS. Ann Int Med 1995;122:481

Health promotion

- **Maintain fitness / wellness**
- **Treat and address risk factors**
 - **Smoking**
 - **High blood pressure**
 - **Overweight/obesity**
 - **Diabetes/pre-diabetes**



Comprehensive Lifestyle Program

- **Reasonable, Achievable Goals**
- **Starts with basic education**
 - Nutrition
 - Activity
- **Self-Monitoring**
 - Accountability
- **Problem Solving**
- **Behavioral Issues**
- **Managing High-Risk Situations**
 - Holidays
- **Emotions and Hunger**



Lessons from lifestyle intervention

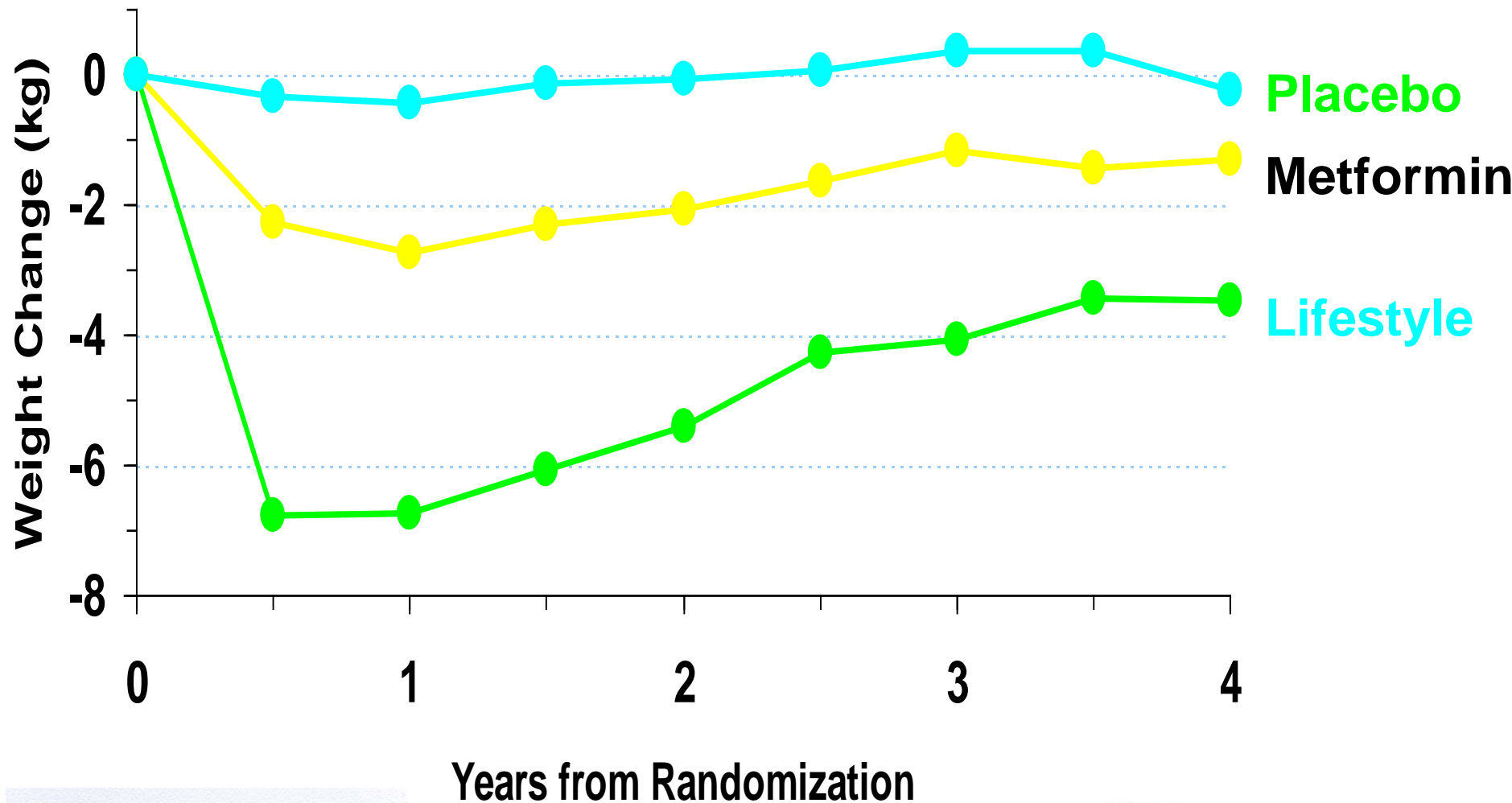
What is lifestyle intervention?

An intensive program with the following specific goals in overweight people with pre-diabetes:

- **> 7% loss of body weight and maintenance of weight loss**
- **> 150 minutes physical activity per week**

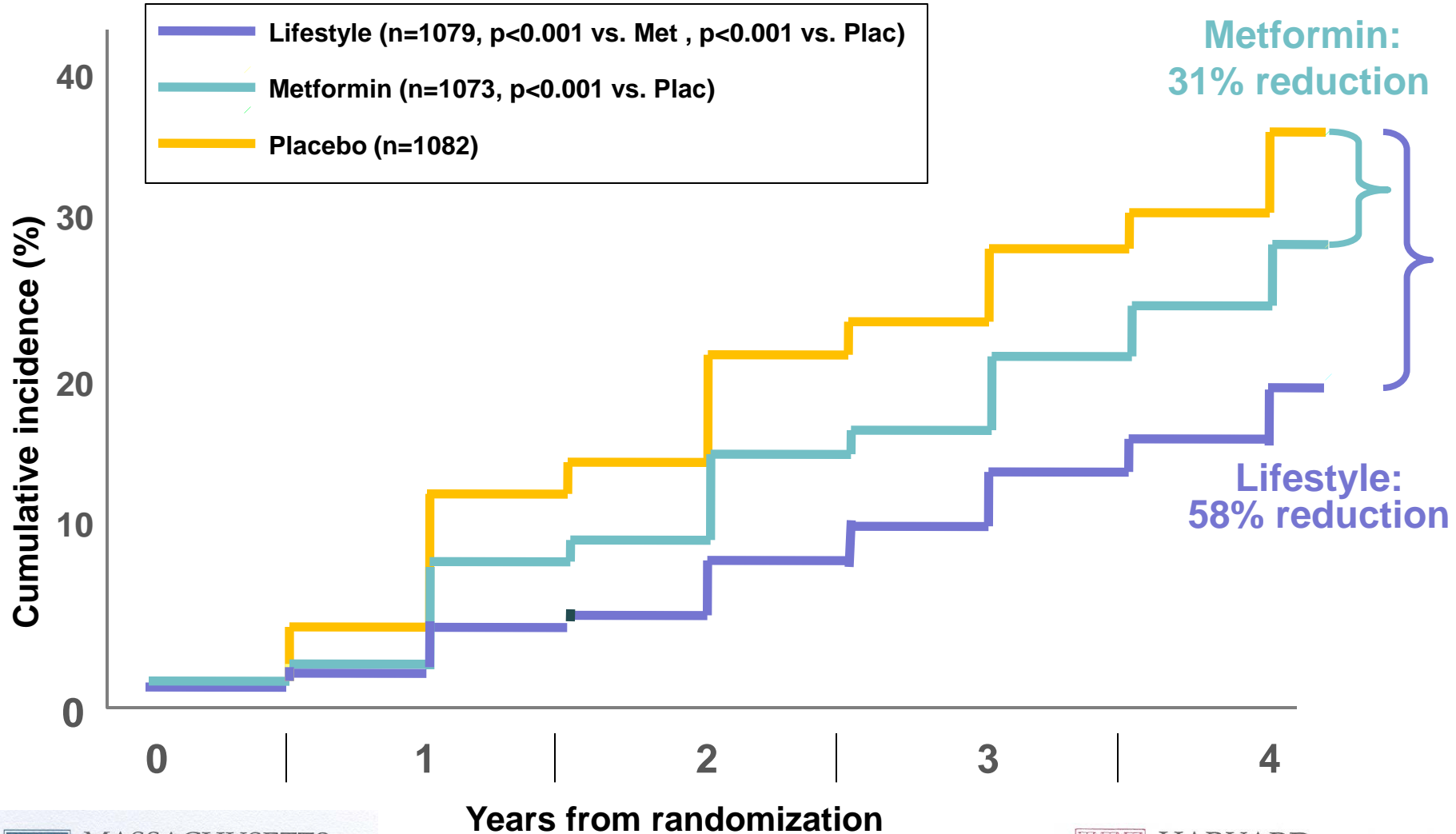


Mean Weight Change in the Diabetes Prevention Program



Diabetes Prevention Program

All participants



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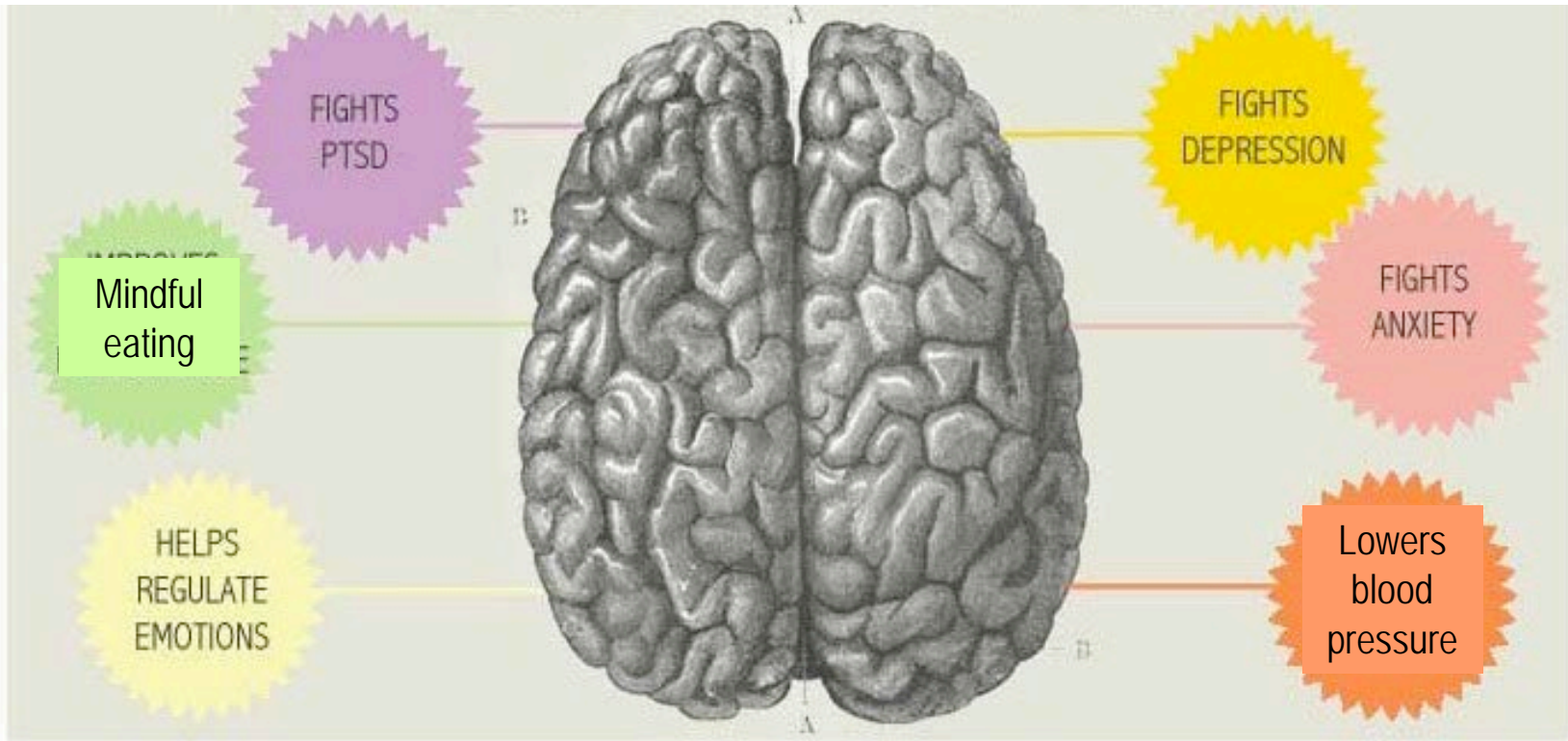
NEJM 2002;346: 393

Lessons

- **Modest weight loss yields health benefits, including diabetes prevention**
- **Sustainable behavioral strategies lead to success, rather than “diets”**
 - Noom
 - Omada
- **Ongoing studies of Mediterranean diet in firefighters**



Mindfulness and health



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Thank you!

- **Thank you for your work!**
- **Take care of yourselves**
 - **Mental health**
 - **Weight maintenance**
 - **Cardiovascular and diabetes risk reduction**



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Q & A

- **Diet and exercise**
- **Other endocrinology topics**
 - **Thyroid conditions**
 - **Osteoporosis**
 - **Menopause**



3 – 4 – 5 Method

Breakfast	300 cals
Snack	100 cals
Lunch	400 cals
Dinner	500 cals
<u>Snack</u>	<u>100 cals</u>
<u>TOTAL</u>	<u>1400 cals</u>

